Statewide Data Program Needs Assessment

Watermaster Program
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Program Description

The California Water Plan is a strategic plan for water management in California for the next 20 plus years. As part of this plan, the California Water Plan prepares water balances (portfolios) for the entire State.

Data Needs

The California Water Plan requires water quantity and water use information. It uses historical data, including:
>Groundwater
>Surface water
>Reservoir operation
>Precipitation
>Land use
>Climate data

In addition, the California Water Plan needs future estimates for:
>Population
>Land Use. Land use has to be interpolated between years.
>Urban growth
>Economics (prices and elasticities)
>Demographics
>Water use efficiency
>Change in groundwater storage

There are large issues of how to incorporate climate change and floods into future estimates.

The two main tools used for scenarios are
>WEAP. This is a watershed model. One of the problems is that the model does not store different scenarios (inputs and outputs). Mohammed stores this information in Excel. It would be good to store this information in Oracle.
>SWAP. This is a statewide agricultural production model. Farhad runs this model. It requires water supplies to run, and produces demands.

Rich hopes of get water quantities for a baseline and future scenarios. The scenarios will be used to evaluate new storage projects, new water use efficiency guidelines (20 * 2020), and desalination projects.

Is there enough data? No. We can always use more.

Data Management

Need to be able to store WEAP inputs and outputs in Oracle.
Need the data from the California Water Plan portfolios. Currently, these are not easily accessible.

Unmet Needs

Need to be able to store WEAP inputs and outputs in Oracle. (duplicate comment)
Need the data from the California Water Plan portfolios. Currently, these are not easily accessible. (duplicate comment)

May need a more robust system with WEAP.
Need documentation on what is done for the scenarios.

Need future land use, especially urbanization. Need better tools to predict this. Land use is done year by year.

Apportioning Costs

One option would be to apportion costs based on use, and frequency of use.

Another option would be to put the Data Program on overhead.

Other Issues

Rich suggested we talk to the Bay Delta Office. There are various groups (Modeling, Delta, South Delta, and North Delta) in the Office.

Rich suggested we talk to Amir Rangchi in SWAPO.

Rich thanked us for taking on this task.